European Materials Research Society

2025 Spring Meeting

May 26 - 30 | Strasbourg Convention Centre

View symposium details

SYMPOSIUM D

Next-Generation Solar Technologies: unconventional materials and sustainable innovations for photovoltaic, photoelectrochemical and photocatalytic systems

Oral sessions : MARIE CURIE B - FIRST FLOOR
Poster Sessions : ETOILE - FIRST FLOOR

Symposium Organizers:

Francesca DE ROSSI (Main organizer), University of Rome Tor Vergata, Dept. of Electronic Engineering, Centre for Hybrid and Organic Solar Energy, Italy

Francesco LAMBERTI (Main organizer), University of Padova, Dept. Chemical Sciences, Italy

Luigi Angelo CASTRIOTTA, University of North Carolina at Chapel Hill, Department of Applied Physical Science, USA

Matteo BONOMO, University of Turin, Department of Chemistry and NIS Interdepartmental Center, Italy

Salvador ESLAVA, Imperial College London, Dept. of Chemical Engineering, UK

Teresa GATTI, Department of Applied Science and Technology, Italy

Monday May 26

D01 next generation PV: Pb-free/-less PSC and PIMs 1

Chairperson(s): CASTRIOTTA Luigi angelo

DE ROSSI Francesca

View session abstracts

08:30	2581	The role of pnictogen co-alloying in perovskite-inspired photovoltaics **VIVO Paola (Invited)**
09:00	1709	Addressing Charge Recombination Challenges in Pnictogen Chalcohalides for Next-Generation Photovoltaics **LÓPEZ ÁLVAREZ Cibrán**
09:15	2045	Heteroepitaxial Growth and Characterization of $BaZrS_3$ Thin Films for Optoelectronic Applications **JAMSHAID Sumbal**
09:30	2749	Device compatible processing of perovskite chalcogenide $BaZrS_3$ photoabsorber thin films **LINDEMANN Olaf**
09:45	1099	High-Vacuum Synthesis of Novel Chalcogenide Perovskite $CaZrS_3$ Thin Films for PV Applications **ALTHUBYANI Hussain**

Monday May 26

D02 next generation PV: Pb-free/-less PSC and PIMs 2

Chairperson(s): BONOMO Matteo

DE ROSSI Francesca

View session abstracts

10:30	2891	Advancing Tin Halide Perovskites for Photovoltaic Applications **POLI Isabella (Invited)**
11:00	285	Crystal Growth Modulation of Tin-Lead Halide Perovskites via Chaotropic Agent **DONG Yueyao**
11:15	2892	Optoelectronics Properties enhancement of multicrystalline silicon using double treatments for solar cell application **BEN RABHA Mohamed**
11:30	2782	Ag-In-I Phase Space Exploration through Substitutional Engineering Approach **Tyrpenou Christos**

Monday May 26

D03 next generation PV: inorganic PSC

Chairperson(s): CASTRIOTTA Luigi angelo

DE ROSSI Francesca

View session abstracts

13:45	1251	Three birds with one stone: Textured foils for flexible perovskite solar cells **BECKER Christiane (Invited)**
14:15	2826	Effect of Unintentional Doping of ITO by p-type NiOX Layer **ÇODUR Muhammet Mustafa**
14:30	1386	Cost-Effective and High-Performance Symmetric and Asymmetric Dielectric/Metal/Dielectric Electrodes for Semi-Transparent Perovskite Solar Cells **FERRARA Vittorio**
14:45	1643	Metallic nanowire networks as transparent electrodes for next solar cell generation: A brief review **BELLET Daniel**
15:00	2278	Low Temperature Fabrication of SnO_2 Electron Transport Layer on Flexible Substrate for Perovskite Solar Cell using Sputtering **SINGH Abhinav Kumar**
15:15	2598	Formation of highly oriented α-$CsPbI_3$ arrays using controlled perovskite degradation in thin films **SHILOVSKIKH Vladimir**
15:30	2369	Exploring the Synthesis Mechanisms of Novel $CsPbBr_3$@MoS_2 Nanostructures toward their implementation in the field of renewable energy **YADGAROV Lena**
15:45	1434	Improved radicchio seedling growth under $CsPbI_3$ perovskite rooftop in a laboratory-scale greenhouse for agrivoltaics application **Calogero Gaetano**

Monday May 26

D04 next generation PV: scalability

Chairperson(s): CASTRIOTTA Luigi angelo

DE ROSSI Francesca

View session abstracts

16:30	2078	Simulation-Assisted Upscaling of Organic Photovoltaics: From Lab Cells to Large Area Modules **BASU Robin**
16:45	49	Removing the p-type surface trap layer for efficient organic solar cells **LIU Zesheng**

17:00	536	From solution to thin-film: Approaches to improving the optoelectronic properties of halide perovskites **ZHAO Ruohan**
17:15	657	Evaluation of long-term reliability of perovskite solar modules **HONG Yun-Kyeong**
17:30	3017	Back-contact Perovskite Solar Cell Modules Fabricated via Roll-to-Roll Slot-die Coating **LIDZEY David**
17:45	2674	Exploring the Feasibility of Copper Incorporation in Halide Perovskites: Impact on CO_2 PhotoreductionPerformance **TAILOR Naveen**
18:00	2396	Lead-free Halide Double Perovskite Based Advanced Nano-heterostructure for Photocatalysis Application **AHMAD Razi**
18:15	345	Untapped Potential of Lead-Free Halide Perovskites for Synergistic Biomass Valorization and Solar Fuel Generation **RAWAT Bhawna**

Tuesday May 27

D05 Solar photocatalysis and PEC

Chairperson(s): LAMBERTI Francesco

View session abstracts

08:30	2284	Photoelectrochemical CO_2 Reduction on Bare $Cu(In,Ga)S_2$ Surface: Addressing the Stability and Selectivity Challenge in Photocathode Materials **SHUKLA Sudhanshu (Invited)**
09:00	3141	Integrating Phosphor-Functionalized Phenyl-Modified Graphitic Carbon Nitride into Photocatalysis: Solar-to-Hydrogen photocatalytic Conversion Under Visible Light. **BAGCHI Saswati**
09:15	3037	Ni-Doped SnS_2/g-C_3N_4 Heterojunctions for High-Efficient Photoelectrochemical Water Splitting **SARITA**
09:30	3075	Activation to Deactivation Dynamics of Cu Embedded TiO_2 for Solar CH_4 Generation **ALI Shahzad**
09:45	3034	Photoelectrochemical behavior of 2D perovskite thin-films in aqueous enviroments: A critical assestment into material stability **VASQUEZ-MONTOYA Manuel Felipe**

Tuesday May 27

D06 Photocatalysis & solar fuels (I)

Chairperson(s): GATTI Teresa

LAMBERTI Francesco

View session abstracts

10:30	2530	Photonic-amplified Multi-band PV: a new driver for high-efficient Solar Fuels **MENDES Manuel (Invited)**
11:00	624	Plasmonic Nanodisk Metamaterial Photocatalyst Sheet for Photocatalytic CO_2 Reduction **KU Benny**
11:15	2678	Enhancement of photocatalytic activity and motion of nanomotors inside spherical microreactors **MARTÍNEZ-BUSTOS Anthony Jesús**
11:30	2476	Continuous-Flow Synthesis of $BiVO_4$ Nanoparticles: From laboratory scale to practical systems **GUTIERREZ BLANCO Ana**
11:45	1167	Membraneless electrolysis for hydrogen production from organic waste with integrated CO_2 capture **VALENZA Roberto**

Tuesday May 27

D07 next generation PV: sustainability

Chairperson(s): BONOMO Matteo

DE ROSSI Francesca

View session abstracts

13:45	2136	Methods to increase the sustainability of solution-processed devices **PANIDI Julianna (Invited)**
14:15	634	A sustainable hydrogel-based DSSC integrated to a supercapacitor for direct indoor light-energy storage **DOMENICI Sara**
14:30	3090	Understanding the Perovskite and Charge Transport Layer Interfaces to Mitigate the Recombination Channels and Develop Recycling Strategies **Kulkarni Ashish**
14:45	2770	Fluorosilane Facilitates Highly-Efficient and More Stable Perovskite Solar Cells **Zhang Dongjiu**
15:00	1944	Advanced Development of Single-Crystal-Based $MAPbI_3$ Sputtering Targets for Perovskite Thin Films via RF-Magnetron Sputtering **Lim Doha**

15:15	756	Inner/Outer Side Chain Engineering of Non-Fullerene Acceptors for Efficient Large-Area Organic Solar Modules Based on Non-Halogenated Solution Processing in Air **BAJWA Muhammad Jahan Khan**
15:30	1974	Room Temperature Synthesis of ultra-small SnO_2 Quantum Dot as Charge Transport Layer for Perovskite Solar Cells **Gidey Abraha**
15:45	966	Transfer Printing Techniques for High-Performance Organometallic Halide Perovskite Solar Cells **THAKRAN Anjali**

Tuesday May 27

DP02 poster session 1

Chairperson(s): nan

View session abstracts

16:30	01_113	Efficient Hydrogen Evolution via Scalable Sono-Vapor Synthesized Photoactive COFs **KHAN Niaz Ali**
16:30	02_1175	Nature-inspired Photocatalysis: Chlorophyllide-sensitized TiO_2 Nanofibers **Ryci Lukas**
16:30	03_1188	Investigation and evaluation of $BiVO_4$ based photoanodes for production of strong oxidants and green hydrogen **PETRULEVICIENE Milda**
16:30	04_1199	Light-Driven Organic Transformation with Oxide-Based Photoelectrodes **JIANG Chang-Ming**
16:30	05_1481	«Purification of Monosilanes from Chemical Impurities to Enhance Their Properties and Industrial Applications» **KHURSANDOV Umidjon**
16:30	06_1519	Efficient Natural Dye-Sensitized Solar Cells Using Mediterranean Olive Leaf Extracts as Sustainable Sensitizers **Younas Muhammad**
16:30	07_1581	Hydrophilic, hydrophobic, and photocatalytic properties of titanium dioxide nanofilms on the surface of solar panels **ZOKHIDOV Khojiakhmad**
16:30	08_1752	Investigations of Na-rich phases formation and segregation in pure sulphide CIGS absorber **DEMOULIN Rémi**
16:30	09_180	Unveiling the Synergistic Power of Oxygen Vacancies in Ni-loaded TiO_2-x for enhanced photocatalytic performance **MAZUMDAR Anish Kumar**

16:30	10_1933	From Good to Great: Revolutionizing $Cu(In,Ga)(S,Se)_2$ Thin-Film Solar Cells with Doping Approaches **KIM Da-Seul**
16:30	11_2116	Lightweight Flexible InGaP/GaAs Thin-Film Solar Cells for Space Applications Using High-Yield 3 inch Wafer Bonding Technology **Hong Sukkyu**
16:30	12_2118	Synthesis and characterization of HiPIMS-deposited Zr–O–N films for potential water splitting applications **VU Minh Thanh**
16:30	13_213	Synthesis and application of N-vacancy rich novel g-C_3N_4/CaF_2 heterojunction nanocatalyst for the photochemical degradation of phenolic pollutant in wastewater **DHAR Dwaipayan**
16:30	14_2134	Study of structural and optical properties of pure sulphide CIGS relative to Na incorporation for tandem applications **Dongmo Richel**
16:30	15_2146	Innovative and Environment-Friendly Method to Synthesize Anodic WO_3 Nanostructures from Organic Acids **Szczerba Mateusz**
16:30	16_2154	Hydrothermal Surface Modifications of Anodic WO_3 by Sn Compounds for Enhancing Photoelectrochemical Water Splitting Activity **PIECHA Daniel**
16:30	17_2166	Stabilization by Pyridyl Anchoring Organometallic Complex Dyes for Dye-Sensitized Photoanodes **YUKI Fukuda**
16:30	18_2170	Lead-Free Double Perovskite $Na_2AgBiBr_6$: Structural, Optoelectronic, Elastic, and Thermoelectric Properties for Photovoltaic and Thermoelectric Applications **Younas Muhammad**
16:30	19_2181	Surface engineered $SnWO_4$/ CoFe-MOF photoanodes for boosting photoelectrochemical water oxidation **ANAND Anitesh**
16:30	20_222	Standard techniques on the measurement of performance in the large area Dye sensitized solar cell (DSSC) **MANDAL Milan Kumar**
16:30	21_2246	Solar-driven Hydrogen Production from Seawater **YANG Xiao-Yu**
16:30	22_2252	Coalescing solar-to-chemical and carbon circular economy: mediated by metal-free porphyrin and triazine-based porous organic polymer under natural sunlight **SAINI Neha**
16:30	23_2276	$CsPbBr_3$-based Perovskite Photoanode for Efficient Hydrogen Production using Solar Energy **Leinen Dietmar**

16:30	24_2307	AgNPs layer influence on PEDOT:PSS/PM6:Y6 interface on based organic photovoltaics **FARIA Roberto**
16:30	26_2455	Continuous Flow Synthesis of Conjugated Polymer based Photocatalysts for Environmental Remediation **SIRIL Prem Felix**
16:30	27_2496	Photoelectrochemical Water Oxidation Performance Enhancement in Fe-$Cs_2AgInCl_6$ Halide Double Perovskites **ANAND Abhishek**
16:30	28_2502	Controllable critical state for photoelectrochemical photocurrent switching via tuning the semiconductor-electrolyte interface **AJAY Ajay**
16:30	29_2537	Resonant Raman spectra of cadmium sulfide wurtzite: A first-principles simulation study **KACHMAR Ali**
16:30	30_2553	High-performance interfacial material deposition using atmospheric-pressure spatial atomic layer deposition for non-fullerene acceptor organic photovoltaics **ALMALKI Majed**
16:30	31_2659	Confocal Raman, Photoluminescence, and Photocurrent Imaging of an Organic Solar Cell **BERRY Matthew**
16:30	32_3030	High-Performance Inverted P3HT:HgTe Hybrid Solar Cells Enabled by NIR-Absorbing Quantum Dots **Bigdeli Mahdi**
16:30	33_3073	Nanomaterials Coatings for Cleaner and Highly Efficient PV Panels in Desert Climates **ELSAFI Alaa**
16:30	34_3079	Silicon Nitride Layer and Hydrogen Plasma Effect of Optoelectronics Properties on multicrystalline silicon **BEN RABHA Mohamed**
16:30	35_445	Ternary PdCoNi Alloy Thin Films Electrocatalyst for Efficient Hydrogen Evolution Reaction **EHSAN Muhammad Ali**
16:30	36_589	A Study on VO_2 Protective Layer Deposition and Defect Inactivation of BiVO4 Photoelectrodes via Photoelectrochemical Transition Metal Engineering **LEE Kun Woong**
16:30	37_591	Satellite dish-like nanocomposite as a breakthrough in single photon detection for highly developed optoelectronic applications **BEN GOUIDER TRABELSI Amira**
16:30	38_639	Dynamic Modeling and Analysis of a Hybrid PV-Wind/Fuel Cell/TEG System. **HAJJI Mohammed**

16:30	39_656	Wide-Bandgap Polymers with Hydrogen bonding Moieties Enable Highly-Efficient and Flexible Ternary Organic Solar Cells **ARSHAD Fiza**
16:30	40_670	Effect of Synthesis methods on Photocatalytic performance of $AgVO_3$ nano rods for Rhodamine B degradation **ESMAILI Hassan**
16:30	41_873	Small conjugated molecular crystal for enhanced photovoltaic applications **CESCON Thamiris**
16:30	42_911	Silver Nanowire Based Highly Transparent and Conductive Electrodes in Replacement of ITO for Organic Solar Cell **ASIF Parwaz**
16:30	43_97	Synthesis and Characterization of Silicon Nanowires Coated with Conducting Polymer thin Film for Application on Organic Dye Photodegradation **ATYAOUI Malek**
16:30	44_98	H2 generation in CuO/Cu2O thin films via plasmonic catalysis **RANJAN Ashish Kumar**
16:30	45_993	Impact of Energy States and Lifetimes of Photo-Generated Carriers on Photocatalytic Efficiency Through Structural Optimization of Photocatalysts **Kim Ryun Na**

Wednesday May 28

D09 advanced photocatalytic interfaces

Chairperson(s): GATTI Teresa

View session abstracts

08:30	1589	Engineered interfaces for energy harvesting **VOMIERO Alberto (Invited)**
09:00	2538	Influence of wavelength and pulse duration on the selective laser ablation of WOx, VOx and MoOx thin films **Molpeceres Carlos**
09:15	2471	Atomic Layer Deposition of Spinel Bimetallic Oxides for Enhanced Photoelectrochemical Energy Conversion **BAWAB Bilal**
09:30	2226	Fluorinated alkyl thiol hydrophobic hole transporting layer in solid state dye-synthesized photoanode enhanced photocatalytic water splitting properties **MOTONORI Watanabe**
09:45	1913	Single-atom Mo catalyst on durable Si photocathodes for photoelectrochemical hydrogen generation from acidic seawater **SELVARAJ Seenivasan**

Wednesday May 28

D10 Photoelectrochemical materials and catalysis

Chairperson(s): LAMBERTI Francesco

View session abstracts

10:30	3154	Going with the flow: solar redox flow cells for efficient solar energy storage into electrochemical fuels **DIAS Paula (Invited)**
11:00	1557	Investigation of the limiting factors in a Ti doped Ta_3N_5 photoanode for PEC water oxidation **CHESINI Alessandro**
11:15	1113	Optimization of $Sb_2(S,Se)_3$ absorber for photoelectrochemical cells via hydrothermal synthesis **SIEIRA Bárbara**
11:30	654	Heptazine based photocatalyst for hydrogen peroxide production in water medium **YAMANAKA Yamato**
11:45	1183	Chlorophyllide-sensitized Photoelectrochemical Cells **Ryci Lukas**

Wednesday May 28

D11 Photocatalysis & solar fuels (II)

Chairperson(s): LAMBERTI Francesco

View session abstracts

13:45	2715	Solar fuel generation: From materials to devices **HAUSSENER Sophia (Invited)**
14:15	725	Organic-Inorganic Hybrid Electrode Systems for Near-Infrared Light-Driven Water Splitting **SHEN Xiaofeng**
14:30	571	Effects of Hydrothermal Etching and Conversion on Photocatalytic Hydrogen Evolution and Overall Water Splitting with Nanoparticulate and Mesoporous TiO_2 and $SrTiO_3/TiO_2$ Composites **MARSCHALL Roland**
15:00	822	Bismuth-based semiconductors for sustainable light-energy conversion **GATTI Teresa**
15:15	986	Ni-doped zinc indium sulfide nanosheets for photocatalytic hydrogen production coupled with selective glucose oxidation **WU Jih-Jen**

Thursday May 29

D12 simulation and AI tools for materials research

Chairperson(s): CASTRIOTTA Luigi angelo

DE ROSSI Francesca

View session abstracts

09:00	1130	Robotics and Artificial Intelligence Accelerated Data-driven Energy Materials Discovery **WANG Boyuan**
09:15	2555	A Federated Research Data Infrastructure for Next-Generation Solar Cell Materials **MARQUEZ PRIETO José A.**
09:30	92	Tuning the Transparency and Exciton Transition of D-π-A-π-D Type Small Molecules **AYDAN ALKAN Ecem**
09:45	2757	First-Principles Investigations of Few-Layer and Bulk Orthorhombic B_2N_2: Exploring Structural and Optoelectronic Properties for Photovoltaic Applications **VENEZUELA Pedro**

Thursday May 29

D13 interfaces in PSC 1

Chairperson(s): BONOMO Matteo

CASTRIOTTA Luigi angelo

View session abstracts

10:30	2853	Interface Defect Formation in Halide Perovskite Solar Cells **SCHULZ Philip (Invited)**
11:00	2626	Understanding Interfacial Effects and Charge Transport between NiOx and Perovskite in Inverted Perovskite Solar Cells **Lee Hanseul**
11:15	2286	Comparative Analysis of Recombination Processes and Long-Term Outdoor Degradation in PSCs with SAMs **DELGADO RODRÍGUEZ Silvia**
11:30	578	Strategic Additive Engineering in 3D Perovskites Coupled with CuSCN Inorganic HTL for High-Efficiency and Stable Solar Cells **Viswakarman Vishal**
11:45	81	Unveiling the Role of BODIPY Dyes as Small-Molecule Hole Transport Material in Inverted Planar Perovskite Solar Cells **ROCHA ORTIZ Juan Sebastian**

Thursday May 29

D14 interfaces in PSC 2

Chairperson(s): BONOMO Matteo

DE ROSSI Francesca

View session abstracts

13:45	600	Low dimensional materials for perovskite single junction and perovskite/silicon tandem photovoltaics: toward scalable devices in an industrially relevant environment **AGRESTI Antonio (Invited)**
14:15	1158	The Effect of Antisolvent Treatment on the Growth of 2D/3D Tin Perovskite Films for Solar Cells **MIN Ganghong**
14:30	1001	Elimination of grain surface concavities for improved perovskite thin-film interfaces **XIAO Tong**
15:00	1964	Crafting Surface-Selective Layer With Infiltrated 2D/3D Heterojunctions for Efficient and Stable Perovskite Solar Cells **DAS ADHIKARI Ramkrishna**
15:15	997	Polyethylenimine-modified Tin Dioxide Electron Transport Layer for Efficient Perovskite Solar Cells **CHO Il-Wook**
15:30	2347	Phenethylammonium Halide Blend as an Efficient and Cost-effective Interlayer in Solution-processed Inverted p-i-n Perovskite Solar Cells **CHAKRABARTI Tanwistha**
15:45	84	Synergistic Passivation between Tin Oxide and Perovskite Absorber to Construct Photovoltaic Devices with High Efficiency **WANG Ching-Ying**

Thursday May 29

DP04 poster session 2

View session abstracts

16:30	01_1106	Dielectric-metal-dielectric stacks as transparent electrodes for solar cells **AZIZ Umer**
16:30	02_1118	Bidentate Modification Assisted Heterojunction Engineering at the NiOx-perovskite Buried Interface for Efficient Charge Transport enable Fill Factor over 85% **BAISHYA Himangshu**
16:30	03_1147	Flexible alicyclic ammonium induced bifacial defect passivation for efficient and operationally stable perovskite solar cells **DU Yitian**

16:30	04_120	Enhanced Efficiency in CdTe-Based Solar Cells with PEDOT:PSS Hole Transport Layer **MEDINA BAUTISTA Alejandro Emmanuel**
16:30	05_1335	A Recyclable Reducing Agent to Minimize Sn4+ in Pb-Sn mixed Perovskite Precursor Solution for Sustainable All-perovskite Tandem Solar Cells **IM Doyun**
16:30	06_1394	Fast-Polymerizing Polysiloxane Coatings for One-step Encapsulation of Semi-Transparent Perovskite Solar Cells **FERRARA Vittorio**
16:30	07_1574	Innovative Monosilane Production Technology for Polycrystalline Silicon: Catalytic Optimization and Environmental Advancements for Solar Panel Manufacturing **Ashurov Xatam**
16:30	08_1585	Optimization of Electrical and Optical Losses in Thin c-Si Bifacial PERC Solar Cells to Module Level Through Modeling **KHAN Khushi Muhammad**
16:30	09_1605	Low-Dimensional Hybrid Pb-Free Perovskite Derivatives: Azetidinium Metal Halides **JIN Young Un**
16:30	10_1760	Formamidinum based Quasi 2D Ruddlesden-Popper-type Halide Perovskites Single Crystals **TAHIR Shaista**
16:30	11_1767	Study of Aziridinium Lead Iodide **ARPAVATE Witchaya**
16:30	12_1774	Revealing excited state dynamics in 2D/3D perovskite solar cells: molecule- photon interaction **CHOUDHARY Shivani**
16:30	13_1789	Extending Absorption of Ag/In-Based Halide Double Perovskite to Visible Light Region by Alloying **KAYA Ismail Cihan**
16:30	14_1793	Real-Time Insights into Perovskite Crystallization Process **KŘÍŽOVÁ Karolína**
16:30	15_1819	Mixed Self-Assembled Monolayers Facilitate Green Vapor-assisted Solution Method for Fabricating Wide-bandgap Perovskite Solar Cells **ZHENG Chunqiu**
16:30	16_1841	Design and performance analysis of ACIGS thin-film solar cells including silver concentration and temperature effects **DJEFFAL Faycal**
16:30	17_1989	Interface engineering and band alignment studies of Cu doped NiO as a hole transport layer for triple cationic perovskite solar cells **PUJA Puja**
16:30	18_2047	Ferromagnetic Nickel as a Sustainable Reducing Agent for Tin–Lead Mixed Perovskite in Single-Junction and Tandem Solar Cells **IM Doyun**

16:30	19_2064	Grain Boundary Passivation for Wide Bandgap Sub-cell of Perovskite Tandem Solar cells using Inorganic Potassium Lead Halide **Kim Sunwoo**
16:30	20_2187	Mitigating Redox Reactions at the Perovskite-Nickel Oxide Junction Using TPADEEP to Enhance the Efficiency of Perovskite Solar Cells. **YADAV Deepak**
16:30	21_2247	Long Wavelength Light Activated Strain-Reduction Enhances Photovoltaic Performance in Perovskite Solar Cells **Jibeom Hong**
16:30	22_2256	Sulfur-containing polymer-based antisolvent additive engineering for interface improvement and reduction of Pb2+ leakage in perovskite solar cells **INSITI Piboonwan**
16:30	23_2364	Ultraviolet-Induced Degradation in Perovskite Solar Cells: A Comparative Study of Structures and Power Densities. **DELGADO RODRÍGUEZ Silvia**
16:30	24_2403	Mitigating Halide Segregation via a Synergistic Two-way Approach: Additive Incorporation and Dimensional Engineering **PATEL Mayur**
16:30	25_2617	Emission properties of all-inorganic halide perovskite alloy microplates grown by two-step chemical vapor deposition **WELNA Monika**
16:30	26_2651	Fabrication of Perovskite $LaVO_3$ Films for Optoelectronic Applications **A K Sivadasan**
16:30	27_2858	Light Converting Luminescent Layer for Enhanced Efficiency Solar Cell **SUN Baoquan**
16:30	28_361	Bipolar Metal Oxide Charge Transporting Layers for Efficient Perovskite Solar Cells **CHU Chih Wei**
16:30	29_548	Optimizing Electron Transport Layers for High-Efficiency Perovskite Solar Cells using Impedance Spectroscopy **KHALIFA Marouan**
16:30	30_666	Interface engineering for photovoltaics : Design and characterization of high-performance thin films based on chalcogenide perovskites. **AOUSGI Fethi**
16:30	31_680	Bio-based passivating agent for efficient and stable perovskite solar cells **Carbonera Chiara**
16:30	32_826	Design of small molecular systems and organic-inorganic interfaces for efficient photoinduced charge separation **B. DE QUEIROZ Thiago**
16:30	33_933	Effect of Reactive Polybromide Melt for the Conversion of Metal to Halide Perovskites **MONDAL Arindam**

Friday May 30

D16 characterization techniques

Chairperson(s): DE ROSSI Francesca

LAMBERTI Francesco

View session abstracts

08:30	315	First-principles modelling of hybrid perovskites **SCHWINGENSCHLÖGL Udo**
08:45	1717	Semi-Empirical DFTB Parameters for Iodide and Bromide Perovskites: From 3D and 2D Materials to Heterostructures **JIANG Junke**
09:00	2522	Diffusivity tensors of Br and Cs vacancies in biaxially strained perovskite $CsPbBr_{32}$ **WOLF Matthew**
09:15	572	Unveiling the Microscopic Mechanisms of Perovskite Solar Cells in Action **SETH Sudipta**
09:30	1153	Determining the Ion Diffusion Coefficient(s) in Perovskite Solar Cells with Impedance Spectroscopy **ELHORST Fransien**

Friday May 30

D17 next generation PV

Chairperson(s): DE ROSSI Francesca

LAMBERTI Francesco

View session abstracts

10:30	2447	Construction and Optoelectronic Properties of Bulk-Heterojunction within a Non-Fullerene Acceptor Single Crystal **REN Jie**
10:45	1348	(111) Facet-Oriented Perovskite Film **LEE Yu-Na**
11:00	2384	Light Induced Stability in FA-rich Mixed Halide Double and Triple Cation Perovskite Absorber Layers and Efficient Inverted p-i-n Perovskite Solar Cells **CHAKRABARTI Tanwistha**
11:15	2200	Ion Migration Mitigation by Incorporation of Ionic Liquid and TOP-3 HTL in Perovskite Solar Cells **PAUL Mrittika**
11:30	1049	RF Magnetron Sputtered RuO2 as New Hole Transport Material used in Perovskite Solar cells in (n-i-p) configuration **SHARMA Rajat**
11:45	920	Enhancing perovskite solar cell performance through PbI2 in situ passivation using a one-step process: experimental insights and simulations **Ben Henda Noura**